

A check for \$110.00 for a one-month extension of time is included. Applicant hereby authorizes the Patent and Trademark Office to charge deposit account number 02-0383 for any other charges necessary for the filing of this response.

Amendment

Please amend the claims as follows:

1 (Amended). A drill string drive comprising:

a motor adapted to rotate a drill string;

a sensor adapted to detect the rotation of said drill string at the surface; and

a computer receiving rotational information from said sensor, said computer transmitting control signals to said motor, said computer programmed to control said motor to advance said drill string to a predetermined angle.

3. (Amended). A drilling system comprising:

a motor;

a drill string connected to said motor;

a first sensor adapted to detect the rotation of said motor at the surface;

a bit at the distal end of said drill string;

a second sensor adapted to detect the orientation of said bit; and

a computer adapted to receive information from said first sensor and said second sensor.

4/ 5 (Amended). A drilling method comprising:

monitoring the rotation of a drill string with a sensor at the surface;

transmitting said rotational information to a computer;

controlling a motor that rotates said drill string with said computer; and

rotating said drill string to a predetermined angle.

6/ 7 (Amended). A directional drilling method comprising:

monitoring the rotation of a drill string with a first sensor at the surface;

monitoring the orientation of a downhole tool with a second sensor, said downhole

tool being connected to the end of said drill string;

transmitting said drill string rotational information to said computer;

transmitting said downhole tool orientation information to said computer;

controlling a motor that rotates said drill string with said computer; and

rotating said drill string with said computer controlled motor to a predetermined angle

such that said downhole tool is rotated to a predetermined orientation.

Remarks

Claims 1-3 and 5-7 are pending in this application. Claims 1, 3, 5, and 7 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,854,397 to Warren.

Claims 2 and 6 have been rejected under 35 U.S.C. § 103(a) as being obvious in view of Warren.

According to the office action, Warren discloses a computer controlled top drive drilling system. The office action describes Warren as follows: